

6

ENTERED



OIPE

RAW SEQUENCE LISTING

DATE: 10/10/2002

PATENT APPLICATION: US/10/076,047A

TIME: 10:06:25 p-6

Input Set : N:\Cr4\09272002\J076047.raw

Output Set: N:\CRF4\10102002\J076047A.raw

```

1 <110> APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
2 <120> TITLE OF INVENTION: Proteins, Genes and Their Use for
3   Diagnosis and Treatment of Breast Cancer
4 <130> FILE REFERENCE: 2543-1-026
5 <140> CURRENT APPLICATION NUMBER: US/10/076,047A
6 <141> CURRENT FILING DATE: 2002-02-13
7 <150> PRIOR APPLICATION NUMBER: GB 9919258.5
8 <151> PRIOR FILING DATE: 1999-08-13
9 <150> PRIOR APPLICATION NUMBER: GB 0007754.5
10 <151> PRIOR FILING DATE: 2000-03-30
11 <150> PRIOR APPLICATION NUMBER: PCT/GB00/03143
12 <151> PRIOR FILING DATE: 2000-08-14
13 <160> NUMBER OF SEQ ID NOS: 351
14 <170> SOFTWARE: FastSEQ for Windows Version 4.0
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 10
18 <212> TYPE: PRT
19 <213> ORGANISM: Homo sapiens
20 <400> SEQUENCE: 1
21   Cys Ser Val Phe Tyr Gly Ala Pro Ser Lys
22   1             5             10
24 <210> SEQ ID NO: 2
25 <211> LENGTH: 8
26 <212> TYPE: PRT
27 <213> ORGANISM: Homo sapiens
28 <400> SEQUENCE: 2
29   Val Glu Tyr Gly Phe Gln Val Lys
30   1             5
32 <210> SEQ ID NO: 3
33 <211> LENGTH: 7
34 <212> TYPE: PRT
35 <213> ORGANISM: Homo sapiens
36 <400> SEQUENCE: 3
37   Phe Ala Cys Tyr Tyr Pro Arg
38   1             5
40 <210> SEQ ID NO: 4
41 <211> LENGTH: 13
42 <212> TYPE: PRT
43 <213> ORGANISM: Homo sapiens
44 <400> SEQUENCE: 4
45   Gln Glu Asp Asp Leu Ala Asn Ile Asn Gln Trp Val Lys
46   1             5             10
48 <210> SEQ ID NO: 5

```

RAW SEQUENCE LISTING

DATE: 10/10/2002

PATENT APPLICATION: US/10/076,047A

TIME: 10:06:25

Input Set : N:\Cr4\09272002\J076047.raw

Output Set: N:\CRF4\10102002\J076047A.raw

```

49 <211> LENGTH: 11
50 <212> TYPE: PRT
51 <213> ORGANISM: Homo sapiens
52 <400> SEQUENCE: 5
53     Leu Cys Gln Asp Leu Gly Pro Gly Ala Phe Arg
54         1             5             10
56 <210> SEQ ID NO: 6
57 <211> LENGTH: 10
58 <212> TYPE: PRT
59 <213> ORGANISM: Homo sapiens
60 <400> SEQUENCE: 6
61     Trp Leu Gln Gly Ser Gln Glu Leu Pro Arg
62         1             5             10
64 <210> SEQ ID NO: 7
65 <211> LENGTH: 13
66 <212> TYPE: PRT
67 <213> ORGANISM: Homo sapiens
68 <400> SEQUENCE: 7
69     Gln Ser Leu Glu Ala Ser Leu Ala Glu Thr Glu Gly Arg
70         1             5             10
72 <210> SEQ ID NO: 8
73 <211> LENGTH: 9
74 <212> TYPE: PRT
75 <213> ORGANISM: Homo sapiens
76 <400> SEQUENCE: 8
77     Ala Lys Pro Ala Leu Glu Asp Leu Arg
78         1             5
80 <210> SEQ ID NO: 9
81 <211> LENGTH: 11
82 <212> TYPE: PRT
83 <213> ORGANISM: Homo sapiens
84 <400> SEQUENCE: 9
85     Ala Thr Glu His Leu Ser Thr Leu Ser Glu Lys
86         1             5             10
88 <210> SEQ ID NO: 10
89 <211> LENGTH: 11
90 <212> TYPE: PRT
91 <213> ORGANISM: Homo sapiens
92 <400> SEQUENCE: 10
93     Thr His Leu Ala Pro Tyr Ser Asp Glu Leu Arg
94         1             5             10
96 <210> SEQ ID NO: 11
97 <211> LENGTH: 12
98 <212> TYPE: PRT
99 <213> ORGANISM: Homo sapiens
100 <400> SEQUENCE: 11
101     Val Ser Phe Leu Ser Ala Leu Glu Glu Tyr Thr Lys
102         1             5             10
104 <210> SEQ ID NO: 12

```

RAW SEQUENCE LISTING

DATE: 10/10/2002

PATENT APPLICATION: US/10/076,047A

TIME: 10:06:25

Input Set : N:\Cr4\09272002\J076047.raw

Output Set: N:\CRF4\10102002\J076047A.raw

```

105 <211> LENGTH: 10
106 <212> TYPE: PRT
107 <213> ORGANISM: Homo sapiens
108 <400> SEQUENCE: 12
109     Val Gln Pro Tyr Leu Asp Asp Phe Gln Lys
110         1             5             10
112 <210> SEQ ID NO: 13
113 <211> LENGTH: 9
114 <212> TYPE: PRT
115 <213> ORGANISM: Homo sapiens
116 <400> SEQUENCE: 13
117     Ser Glu Ile Asp Leu Phe Asn Ile Arg
118         1             5
120 <210> SEQ ID NO: 14
121 <211> LENGTH: 16
122 <212> TYPE: PRT
123 <213> ORGANISM: Homo sapiens
124 <400> SEQUENCE: 14
125     Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu Leu Thr Ser Arg
126         1             5             10             15
128 <210> SEQ ID NO: 15
129 <211> LENGTH: 11
130 <212> TYPE: PRT
131 <213> ORGANISM: Homo sapiens
132 <400> SEQUENCE: 15
133     Gly Ala Gly Thr Asp Asp His Thr Leu Ile Arg
134         1             5             10
136 <210> SEQ ID NO: 16
137 <211> LENGTH: 8
138 <212> TYPE: PRT
139 <213> ORGANISM: Homo sapiens
140 <400> SEQUENCE: 16
141     Glu Thr Leu Leu Gln Asp Phe Arg
142         1             5
144 <210> SEQ ID NO: 17
145 <211> LENGTH: 12
146 <212> TYPE: PRT
147 <213> ORGANISM: Homo sapiens
148 <400> SEQUENCE: 17
149     Thr Glu Gln Trp Ser Thr Leu Pro Pro Glu Thr Lys
150         1             5             10
152 <210> SEQ ID NO: 18
153 <211> LENGTH: 15
154 <212> TYPE: PRT
155 <213> ORGANISM: Homo sapiens
156 <400> SEQUENCE: 18
157     Val Leu Ser Leu Ala Gln Glu Gln Val Gly Gly Ser Pro Glu Lys
158         1             5             10             15
160 <210> SEQ ID NO: 19

```

RAW SEQUENCE LISTING

DATE: 10/10/2002

PATENT APPLICATION: US/10/076,047A

TIME: 10:06:25

Input Set : N:\Crf4\09272002\J076047.raw

Output Set: N:\CRF4\10102002\J076047A.raw

```

161 <211> LENGTH: 9
162 <212> TYPE: PRT
163 <213> ORGANISM: Homo sapiens
164 <400> SEQUENCE: 19
165     Gln Gly Ser Phe Gln Gly Gly Phe Arg
166         1             5
168 <210> SEQ ID NO: 20
169 <211> LENGTH: 11
170 <212> TYPE: PRT
171 <213> ORGANISM: Homo sapiens
172 <400> SEQUENCE: 20
173     Ala Asp Gly Ser Tyr Ala Ala Trp Leu Ser Arg
174         1             5             10
176 <210> SEQ ID NO: 21
177 <211> LENGTH: 13
178 <212> TYPE: PRT
179 <213> ORGANISM: Homo sapiens
180 <400> SEQUENCE: 21
181     Ala Glu Met Ala Asp Gln Ala Ala Ala Trp Leu Thr Arg
182         1             5             10
184 <210> SEQ ID NO: 22
185 <211> LENGTH: 9
186 <212> TYPE: PRT
187 <213> ORGANISM: Homo sapiens
188 <400> SEQUENCE: 22
189     Tyr Gly Ile Asp Trp Ala Ser Gly Arg
190         1             5
192 <210> SEQ ID NO: 23
193 <211> LENGTH: 9
194 <212> TYPE: PRT
195 <213> ORGANISM: Homo sapiens
196 <400> SEQUENCE: 23
197     Thr Phe Ala His Tyr Ala Thr Phe Arg
198         1             5
200 <210> SEQ ID NO: 24
201 <211> LENGTH: 14
202 <212> TYPE: PRT
203 <213> ORGANISM: Homo sapiens
204 <400> SEQUENCE: 24
205     Leu Leu Gly Glu Val Asp His Tyr Gln Leu Ala Leu Gly Lys
206         1             5             10
208 <210> SEQ ID NO: 25
209 <211> LENGTH: 11
210 <212> TYPE: PRT
211 <213> ORGANISM: Homo sapiens
212 <400> SEQUENCE: 25
213     Gly Glu Pro Gly Asp Pro Val Asn Leu Leu Arg
214         1             5             10
216 <210> SEQ ID NO: 26

```

RAW SEQUENCE LISTING

DATE: 10/10/2002

PATENT APPLICATION: US/10/076,047A

TIME: 10:06:25

Input Set : N:\Crif4\09272002\J076047.raw

Output Set: N:\CRF4\10102002\J076047A.raw

```

217 <211> LENGTH: 9
218 <212> TYPE: PRT
219 <213> ORGANISM: Homo sapiens
220 <400> SEQUENCE: 26
221     Gln Asp Gly Ser Val Asp Phe Phe Arg
222         1             5
224 <210> SEQ ID NO: 27
225 <211> LENGTH: 16
226 <212> TYPE: PRT
227 <213> ORGANISM: Homo sapiens
228 <400> SEQUENCE: 27
229     Asn Gly Val Ala Gln Glu Pro Val His Leu Asp Ser Pro Ala Ile Lys
230         1             5             10             15
232 <210> SEQ ID NO: 28
233 <211> LENGTH: 11
234 <212> TYPE: PRT
235 <213> ORGANISM: Homo sapiens
236 <400> SEQUENCE: 28
237     Ala Thr Trp Ser Gly Ala Val Leu Ala Gly Arg
238         1             5             10
240 <210> SEQ ID NO: 29
241 <211> LENGTH: 14
242 <212> TYPE: PRT
243 <213> ORGANISM: Homo sapiens
244 <400> SEQUENCE: 29
245     Cys Glu Gly Pro Ile Pro Asp Val Thr Phe Glu Leu Leu Arg
246         1             5             10
248 <210> SEQ ID NO: 30
249 <211> LENGTH: 9
250 <212> TYPE: PRT
251 <213> ORGANISM: Homo sapiens
252 <400> SEQUENCE: 30
253     Cys Leu Ala Pro Leu Glu Gly Ala Arg
254         1             5
256 <210> SEQ ID NO: 31
257 <211> LENGTH: 12
258 <212> TYPE: PRT
259 <213> ORGANISM: Homo sapiens
260 <400> SEQUENCE: 31
261     His Gln Phe Leu Leu Thr Gly Asp Thr Gln Gly Arg
262         1             5             10
264 <210> SEQ ID NO: 32
265 <211> LENGTH: 15
266 <212> TYPE: PRT
267 <213> ORGANISM: Homo sapiens
268 <400> SEQUENCE: 32
269     Leu Glu Leu His Val Asp Gly Pro Pro Pro Arg Pro Gln Leu Arg
270         1             5             10             15
272 <210> SEQ ID NO: 33

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/10/2002
PATENT APPLICATION: US/10/076,047A TIME: 10:06:26

Input Set : N:\Crf4\09272002\J076047.raw
Output Set: N:\CRF4\10102002\J076047A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:71; N Pos. 9,12,15,21,24,27
Seq#:74; N Pos. 9,12,15,21,24,27
Seq#:81; N Pos. 3,15,18
Seq#:84; N Pos. 15,18
Seq#:87; N Pos. 3,15,18
Seq#:90; N Pos. 3,15,18
Seq#:93; N Pos. 3,15,18
Seq#:96; N Pos. 15,18
Seq#:99; N Pos. 15,18
Seq#:102; N Pos. 15,18
Seq#:104; N Pos. 3
Seq#:106; N Pos. 3,6,9
Seq#:108; N Pos. 3
Seq#:111; N Pos. 3,6
Seq#:114; N Pos. 3
Seq#:117; N Pos. 6
Seq#:123; N Pos. 3,6,12,15
Seq#:126; N Pos. 3,12,15
Seq#:129; N Pos. 6,12,15
Seq#:132; N Pos. 12,15
Seq#:134; N Pos. 3,6
Seq#:140; N Pos. 3,15
Seq#:143; N Pos. 3
Seq#:146; N Pos. 15
Seq#:152; N Pos. 3,15,18,21
Seq#:155; N Pos. 3,18,21
Seq#:158; N Pos. 15,18,21
Seq#:161; N Pos. 18,21
Seq#:163; N Pos. 6
Seq#:165; N Pos. 6
Seq#:170; N Pos. 6,9,12,15,18
Seq#:173; N Pos. 6,9,12,15,18
Seq#:175; N Pos. 9
Seq#:178; N Pos. 3,6
Seq#:181; N Pos. 6,9
Seq#:184; N Pos. 6,9,12
Seq#:187; N Pos. 3,9,12
Seq#:190; N Pos. 6,9,12
Seq#:193; N Pos. 3,9,12
Seq#:196; N Pos. 3,6,9,12
Seq#:199; N Pos. 3,6,9,12
Seq#:202; N Pos. 9
Seq#:205; N Pos. 6,12
Seq#:208; N Pos. 3,12

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/10/2002
PATENT APPLICATION: US/10/076,047A TIME: 10:06:26

Input Set : N:\Crf4\09272002\J076047.raw
Output Set: N:\CRF4\10102002\J076047A.raw

Seq#:211; N Pos. 6,12
Seq#:214; N Pos. 3,12
Seq#:217; N Pos. 3,6,12
Seq#:220; N Pos. 3,6,12
Seq#:223; N Pos. 9,12,24
Seq#:226; N Pos. 9,12,24
Seq#:229; N Pos. 9,12,24
Seq#:232; N Pos. 9,12,24
Seq#:235; N Pos. 6,12
Seq#:238; N Pos. 6,9,15
Seq#:241; N Pos. 3,9,15
Seq#:244; N Pos. 6,9,15
Seq#:247; N Pos. 3,9,15
Seq#:250; N Pos. 3,6,9,15
Seq#:253; N Pos. 3,6,9,15
Seq#:258; N Pos. 6,15
Seq#:261; N Pos. 3,15
Seq#:264; N Pos. 6,15
Seq#:267; N Pos. 3,15
Seq#:270; N Pos. 3,6,15
Seq#:273; N Pos. 3,6,15
Seq#:275; N Pos. 9
Seq#:277; N Pos. 9
Seq#:280; N Pos. 6,12
Seq#:283; N Pos. 6,9,15
Seq#:286; N Pos. 3,9,15
Seq#:289; N Pos. 6,9,15
Seq#:292; N Pos. 3,9,15
Seq#:295; N Pos. 3,6,9,15
Seq#:298; N Pos. 3,6,9,15
Seq#:301; N Pos. 12
Seq#:304; N Pos. 6,15
Seq#:307; N Pos. 3,15
Seq#:310; N Pos. 6,15
Seq#:313; N Pos. 3,15
Seq#:316; N Pos. 3,6,15
Seq#:319; N Pos. 3,6,15
Seq#:322; N Pos. 9,12,18,21,27
Seq#:325; N Pos. 9,18,21,27
Seq#:327; N Pos. 3
Seq#:330; N Pos. 3,9,12
Seq#:332; N Pos. 3,9
Seq#:334; N Pos. 3,9
Seq#:336; N Pos. 3,6
Seq#:351; N Pos. 6,9

VERIFICATION SUMMARY

DATE: 10/10/2002

PATENT APPLICATION: US/10/076,047A

TIME: 10:06:26

Input Set : N:\Cr4\09272002\J076047.raw

Output Set: N:\CRF4\10102002\J076047A.raw

L:584 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:0
L:610 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 after pos.:0
L:664 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0
L:690 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:84 after pos.:0
L:716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:0
L:742 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:0
L:768 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:0
L:794 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:96 after pos.:0
L:820 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99 after pos.:0
L:846 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102 after pos.:0
L:864 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104 after pos.:0
L:882 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:0
L:900 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108 after pos.:0
L:926 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:111 after pos.:0
L:952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:114 after pos.:0
L:978 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:117 after pos.:0
L:1026 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:123 after pos.:0
L:1052 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126 after pos.:0
L:1078 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:129 after pos.:0
L:1104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:132 after pos.:0
L:1122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134 after pos.:0
L:1170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140 after pos.:0
L:1196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:143 after pos.:0
L:1222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146 after pos.:0
L:1270 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:152 after pos.:0
L:1296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155 after pos.:0
L:1322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:158 after pos.:0
L:1348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:161 after pos.:0
L:1366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:163 after pos.:0
L:1384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:165 after pos.:0
L:1424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:170 after pos.:0
L:1450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:173 after pos.:0
L:1468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:175 after pos.:0
L:1494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:178 after pos.:0
L:1520 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:181 after pos.:0
L:1546 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:184 after pos.:0
L:1572 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:187 after pos.:0
L:1598 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:190 after pos.:0
L:1624 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:193 after pos.:0
L:1650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:196 after pos.:0
L:1676 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:199 after pos.:0
L:1702 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:202 after pos.:0
L:1728 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:205 after pos.:0
L:1754 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:208 after pos.:0
L:1780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:211 after pos.:0
L:1806 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:214 after pos.:0
L:1832 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:217 after pos.:0
L:1858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:220 after pos.:0

VERIFICATION SUMMARY

DATE: 10/10/2002

PATENT APPLICATION: US/10/076,047A

TIME: 10:06:26

Input Set : N:\Crf4\09272002\J076047.raw

Output Set: N:\CRF4\10102002\J076047A.raw

L:1884 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:223 after pos.:0

L:1910 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:226 after pos.:0